#### KEEGAN WERLIN LLP

ATTORNEYS AT LAW
265 FRANKLIN STREET
BOSTON, MASSACHUSETTS 02110-3113

TELECOPIERS: (617) 951-1354

(617) 951-1400

(617) 951-0586

October 12, 2005

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
100 Cambridge Street
Boston, MA 02110

Re: NSTAR Gas Company, D.T.E. 05-46

Dear Secretary Cottrell:

Enclosed for filing please find NSTAR Gas Company's responses to the Department's Second Set of Information Requests in the above-referenced case.

Thank you for your attention to this matter.

Very truly yours,

Stephen H. August

Enclosures

cc:

Carol M. Pieper, Hearing Officer

Service List

NSTAR Gas Company
Department of Telecommunications and Energy
D.T.E. 05-46

Information Request: DTE-2-1

October 12, 2005

Person Responsible: Robert Koster

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# Information Request DTE-2-1

In accordance with Department directives established in Fitchburg Gas and Electric Light Company, D.T.E. 03-52 (2004), provide, on disk in Microsoft Excel format, all the data used as inputs in the models, including the forecasted explanatory variables.

# Response

Attachment DTE-2-1 (a diskette) contains all the input data used in our models. The Excel format files included on this disk are as follows:

- "Price & Dummy Variables",
- "Cambridge Model Data",
- "Framingham Model Data",
- "New Bedford Model Data", and
- "Worcester Model Data".

The "Price & Dummy Variables" file includes all the Customer and Sales Gas Price Drivers and Dummy Variables that were considered for each of the models. Note, not all single variables were used as an input variable in the models.

The "Cambridge Model Data", "Framingham Model Data", "New Bedford Model Data", and "Worcester Model Data" files include input pertaining to its own district. Within each of these files are worksheets containing Customer Histories Input, Customer Drivers Input, Sales Histories Input and Sales Drivers Input. Note again, not every single variable were used as an input variable in the models. The worksheet, Histories Input includes past historical data from 1978-2004, while the Drivers Input includes the District's economic statistics from 1978-2010 (forecasted from 2004-2010).

The naming convention use in the files is as follows:

Rg: CG (Cambridge), FR (Framingham), NG (New Bedford), WR (Worcester)

# Sales:

rgRHS: Residential Heating Sales

rgRNHS: Residential Non-Heating Sales rgMUNSA: MUNicipal Sales, Aggregate

rgMFSH: Municipal Firm Sales Share (aggregate\*share=firm sales)

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rgCFSFT: Commercial Firm Sales and Firm Transportation (aggregate) rgCFSH: Commercial Firm Sales Share (aggregate\*share=firm sales)

rgIFSFT: Industrial Firm Sales and Firm Transportation

rgIFSH: Industrial Firm Sales Share (aggregate\*share=firm sales)

# **Customers:**

rgRHC: Residential Heating Customers

rgRNHC: Residential Non-Heating Customers rgMUNCA: MUNicipal Customers, Aggregate rgMUNC: MUNicipal Firm Sales Customers

rgCFSFTC: Commercial Firm Sales and Firm Transportation Customers

rgCOMC: COMmercial Firm Sales Customers

rgIFSFTC: Industrial Firm Sales and Firm Transportation Customers

rgINDC: INDustrial Firm Sales Customers

For example, CGRHS = Cambridge Residential Heating Sales
WRINDC = Worcester Industrial Firm Sales Customers

NSTAR Gas Company Department of Telecommunications and Energy D.T.E. 05-46

Information Request: DTE-2-2

October 12, 2005

Person Responsible: Robert Koster

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# Information Request DTE-2-2

Refer to page 1 of the Company's filing (i.e., Executive Summary). Describe whether Global Insight was selected to assist the Company as the result of a competitive bidding process. If yes, please provide a list with the names of the other consultants contacted and an analysis supporting the Company's selection of Global Insight. If no, please discuss why not.

# Response

The selection of a vendor to develop the gas demand forecast was the result of a competitive bidding process. A Request for Proposals ("RFP") for the Development of a Gas Demand Forecast (see Attachment DTE-2-2) was sent to the following list of potential vendors:

- Concentric Energy Advisors
- Economy.com
- Global Insight
- Navigant Consultant, Inc.
- Stone & Webster Management Consultants, Inc.

The RFP defines the required scope of work and the evaluation criteria. Four of the five vendors contacted submitted bids. Based on a review of the four proposals, the proposals of Economy.Com and Global Insight met all the basic requirements of the RFP and both firms were invited to visit NSTAR and discuss their proposals in greater detail. Economy.Com and Global Insight met with NSTAR in separate meetings on November 23, 2004. Based on the proposals, meetings and subsequent telephone conservations with both vendors, Global Insight was selected based on the following factors

- a proven track record in forecasting national and regional economic and price variables;
- extensive knowledge concerning NSTAR Gas' customer, sales, price and weather data:
- significant experience with the regulatory process involved in the filing of NSTAR's Gas Load Forecast & Resource Plan with the Department;
- sufficient staff to handle the forecast, data requests and testimony, and
- the lowest cost.

# **NSTAR Gas Company Electric & Gas Load Forecasting**

# REQUEST FOR PROPOSALS FOR THE DEVELOPMENT OF A GAS DEMAND FORECAST

**September 24, 2004** 

#### NOTICE TO BIDDERS

Three (3) copies of the completed and signed proposal must be received at the following address no later than 4:00 PM on October 18, 2004. Please utilize the Proposal Signature Page located in Section 7 of this Request for Proposals (RFP). NSTAR Gas Company (the Company) reserves the right to reject any and all proposals that arrive after the specified date and time. The Company will not accept faxed copies of the proposals.

NSTAR Electric & Gas Corporation One NSTAR Way, SUMM NE 220 Westwood, Massachusetts 02090-9230 Attn: Robert S. Koster Robert\_Koster@nstaronline.com Phone (781) 441-8186

#### Intent to Bid

Please fill out and return the Intent to Bid form found in Section 6 of this RFP by October 4, 2004. Deliver or mail the form to Robert S. Koster at the above address, or telecopy to (781) 441-8167

#### Bidders Interviews

The Company intends to review the proposals and develop a list of finalists for this contract. At present, the Company is planning to begin interviewing finalists after November 1, 2004.

#### Acceptance Date

If the preceding schedule is met, the Company expects to announce its selection of the successful Vendor on or about November 22, 2004.

#### INTRODUCTION

This RFP seeks assistance for developing econometric models & forecasts required for a filing of the Company's long-range forecast and resource plan with the Massachusetts Department of Telecommunications and Energy (DTE). The filing will be made in compliance with an order from the DTE in the Company's last forecast and supply plan, docketed as NSTAR Gas Company D.T.E. 02-12, and with statutory and regulatory requirements including those contained in M.G.L. c. 164, Section 69I and 980 C.M.R. 7.00 et. seq. The forecasting models must demonstrate predictive power over the prior three years, and should utilize territory-specific information to the extent possible. The Vendor may be required to (1) assist the Company in responding to data requests from the DTE and other parties; and/or (2) provide testimony at the Hearing.

This RFP is organized into seven (7) sections plus relevant attachments. Section 1 provides summary information on NSTAR Gas's view of the nature and scope of the demand forecast to be filed with the DTE. Section 2 puts forth general information and "ground rules" for the study. Section 3 outlines the requirements for content and structure of proposals in response to the RFP. Section 4 identifies certain contractual requirements. Section 5 contains information on payment. Section 6 contains the Intent to Bid form. Section 7 contains the Proposal Signature page. In addition, the RFP includes three attachments pertaining to: general information about the Company, the prior filing submitted and accepted by the DTE and, the Order on the prior filing.

#### (1.0) SCOPE OF WORK

With this RFP, the Company invites proposals from organizations, which will be referred to as Vendors in this RFP, who are able to provide services to design, implement, and report the results of econometric modeling for developing a five-year forecast of demand. It is expected that the successful Vendor will work closely with Company personnel to finalize its approach and intentions so that the regulatory and corporate goals of the demand forecast is satisfied. Details about the specific types of services requested are more fully described below.

The Company was directed by the DTE in D.P.U. 92-159 to perform a number of specific tasks and include them in its next forecast filing. The Company substantially met those directives in its filing in D.T.E./D.P.U/96-117, and the DTE indicated that the forecasts were appropriate and reliable. The Companies most recent filing, D.T.E. 02-12 was approved with out conditions by the department on June 16 2003. The following guidance is provided for the demand forecast:

- (1) Explicitly recognize the Company's four operating divisions: Cambridge, Framingham, New Bedford, and Worcester;
- (2) Forecast the number of customers and either total firm load or per customer average firm load for each class of customer (residential, residential non-heating, commercial, industrial, and municipal) and within each operating division;
- (3) In forecasting, utilize division-specific normal weather conditions (provided by the Company), which are defined as the 1955-2004-year average of effective heating degree days;
- (4) Explicitly forecast transportation and sales volumes separately in the commercial, industrial and municipal classes. Because the historic trend of the transportation volumes may not be indicative of the future, several approaches, e.g. share models, direct estimate, etc. may need to be explored.
- (5) Particular attention must be given to economic theory in evaluating all equations. Dummy variables, and testing for serial correlation, multi-collinearity, hetroskedasticity, etc. will be subject to scrutiny by the Department.
- (6) All equations must be delivered to the Company in EViews 5 and all data and text in MS Excel and Word.
- (7) Conduct sensitivity analyses considering economic and market scenarios to reflect the high and low ends of the forecast.

The demand forecast includes the requirements of all customers for whom the Company has the responsibility for planning and procurement, this includes firm sales customers as well as those firm transportation customers who migrated from firm sales to firm transportation after February 1,1999 and receive capacity from the Company. The forecast must be for a minimum of five split years (11/1-10/31) covering the period from 2004/5 through 2008/9. The Company requires that all data and documentation be provided in electronic form and that the forecast equations/models be delivered in EViews 5 by Quantitative Micro Software, LLC. The vendor must be able and willing to assist the Company in answering information requests and provide expert testimony as required.

The Company anticipates that data for the demand forecast will come from a variety of sources, including historical Company data, service territory-specific economic and demographic data, territory-specific weather data, and fuel prices. Where external data (from outside of the Company's service territory) is used, the source of the data and the reasons for its use must be documented. The Vendor most provide the sources of both historical and forecast data and document how the prior forecasts have compared to actual data. The Company encourages Vendors to be both creative and explicit in their discussion of what data they intend to seek, the applicability of such data, and how they intend to obtain it. The Company notes that it intends to use the selected Vendor in conjunction with its existing staff to carry out load forecasting as required and necessary for the filing. Existing staff resources embody a range of skills covering the quantitative, practical, and regulatory analysis.

The following three documents are attached to facilitate a better understanding of the regulatory requirements, corporate objectives, and the Company in general:

- (1) A description of NSTAR Gas's service territory and customer base. This attachment provides summary information that may be helpful in developing an approach and selecting methodologies.
- (2) The Company's most recent filing, <u>NSTAR Gas Company</u> D.T.E. 02-12. This document is provided in PDF format.
- (3) The DTE's order in NSTAR Gas Company D.T.E. 02-12. This document details the specific regulatory requirements of the DTE, and includes a discussion of the standard of review, which will be applied to the demand forecast. The document is provided in PDF format.

To summarize, NSTAR Gas seeks a Vendor to work with the Company in addressing the goals described above. The following minimum deliverables are required for the study:

- (1) Participation in a kick-off meeting between the Vendor and the Company's project team to discuss and document all stages of the project;
- (2) Presentation of preliminary results and a draft report, for review and comments, before finalization;
- (3) A formal report explaining all methodologies and approaches, and discussing each of the requirements described above;
- (4) For each equation the following must be provided:
  - a. Statistical output demonstrating that the equation satisfies the assumptions of OLS with particular emphasis on serial correlation, multi-collinearity and hetroskedasticity.
  - b. Historical simulated output for each coefficient.
  - c. Results with and without a constant term.
- (5) All equations provided electronically in EViews 5. All data used in modeling provided electronically in Microsoft Excel and the text of the report provided electronically in Microsoft Word;
- (6) Final form specification of all models;
- (7) Assist the Company in responding to data requests from the DTE, DOER, AG and other parties, as necessary (priced separately);
- (8) Provide testimony as needed at the DTE (priced separately).

The Company will be able to provide the successful Vendor with annual historical data through 2003 as soon as the contract is awarded. The 2004 historical data for volumes, customers and weather will be available by mid-January 2005. The expected delivery date for the demand forecast is March 1, 2005. The final documentation will be due by March 21, 2005.

#### (2.0) BIDDING INFORMATION

- A) The Company seeks a qualified and experienced Vendor to develop a comprehensive forecast based on proven econometric methodologies. The Company's general view of the forecast and resource plan was provided earlier under the heading "SCOPE OF WORK." There, the goals of the effort that can be utilized as a "bare bones" sketch of the Company's required services are enumerated.
- B) All proposals received by the Company will be evaluated and compared based on experience, creativity, and the extent to which the submittal expands the summary information provided into a detailed proposal, price, and other factors. The Company reserves the right to apply these factors as it sees fit, and to accept or reject any proposal whether or not it reflects the lowest price.

The Company may, at its discretion: (1) accept an entire proposal; or (2) accept portions of a proposal; or (3) reject proposals in whole or in part. The Company will not return proposals or supporting documents submitted in response to this RFP.

The Company will consider proposals that are either joint ventures or where one or more sub-contractors are utilized. In all such cases a clear description of the qualifications of each firm/individual and their respective roles is essential.

In all proposals, key personnel with responsibility for the project must be identified and their qualifications and resumes provided, along with an estimate of the amount of time each will devote to the effort. The Company requires that key personnel be contractually bound to perform their requisite tasks, as identified in the proposal and ultimately the contract.

C) This RFP may be modified or withdrawn by the Company at its sole discretion or due to an order or other direction from a regulatory body or court. In the event that this RFP is modified, the Company may or may not provide an opportunity for Vendors to modify their original proposals accordingly. Further, the Company may, at its discretion and at any time after selecting a Vendor, modify its approach and/or the scope of services to be provided. In such an event, the Company may

elect to negotiate adjustments to its contract with that Vendor, or it may terminate the contract and solicit proposals from other Vendors. However, the Company prefers that the Vendor initially chosen will have broad enough experience to adapt to such changes. Additionally, the Company expects that, as a result of such changes, the Vendor will not significantly alter its pricing structure.

- D) Upon specific, written request, the Company will use reasonable efforts to hold proposals and related documents confidential to the extent the bidder designates the same as confidential. The Company's abilities in this regard are limited, however, by virtue of the Company's status as a regulated public utility; therefore, the Company cannot guarantee such confidentiality.
- E) No contractual commitment shall exist between the Company and any Vendor unless and until the Company and the Vendor have executed a written contract.
- F) Although the Company requests that all proposals be submitted in the format described herein, the Company shall have the discretion to waive any discrepancies in the form of those proposals.
- G) The Company shall have the right to reject all proposals in the event that it determines, in its sole discretion, that proposals which fulfill the requirements set forth herein have not been submitted. In such an event, the Company shall have the sole discretion in determining whether to issue a second RFP, or to take some alternate approach in obtaining qualified Vendors to perform the requested services.
- H) The Company shall have the right to discuss modifications to proposals with individual Vendors, and to subsequently accept such proposals as modified.
- I) The Company will notify the successful Vendor of the acceptance of their proposal in writing on or after the "acceptance date" set forth in this RFP.
- J) The Company advises, and by submittal of proposals in response hereto Vendors acknowledge, that any contract that is executed with a successful Vendor shall contain a contingency permitting the Company to modify the nature and scope of the services to be provided by the Vendor.
- K) All proposals are submitted with the understanding that the costs associated with preparation of the proposals are entirely assumed by the Vendor.

### (3.0) PROPOSAL REQUIREMENTS

#### A) Narrative, including:

- (1) Description of Vendor's organization including relevant history, experience, size, staff qualifications, corporate purpose.
- (2) List of key staff proposed to provide services, summary of each key project team member's qualifications, expected distribution of time spent by each key project team member.
- (3) The source of the economic and price drivers to be used in the forecast models, and how the forecasts of the drivers have compared to actual over the past three years.
- (4) Detailed description of proposed approach, and deliverables.

  The Company has described its overall view of the nature of the project and the responsibilities of the successful Vendor in Section 1. The Company emphasizes that it is looking to its Vendor to provide significant input as to the design and implementation of the forecasting models. The Company is not wedded to a specific approach, so long as the analyses provide essential information to the Company. That is, as described earlier, the forecasts must function as a useful management tool and meet regulatory requirements.

#### B) Project Pricing

The Company prefers a fixed price for the forecast and documentation and a per diem rate by key individual for assistance on data requests and or testimony as required. The pricing proposal must clearly identify all significant assumptions and costs. For example, personnel time, telephone expenses, mailing, and other expenses should be described.

The Company does not require a specific format for presentation of pricing proposals, however each task and sub-task should be clearly differentiated.

The Company requests that various tasks associated with the forecast be priced at an hourly rate and include a total project maximum based on the number of hours required to perform each task. Again, all services should be broken down by task and sub-task.

All administrative and overhead costs should be clearly identified and noted as fixed or variable.

# C) Presentation of Options and Alternatives

The Vendor's proposal must clearly describe the recommended design, method(s), and approach for the demand forecast. However, the Company encourages Vendors to present any alternative approaches and options. Such presentations should include identification of the rationale, costs, and benefits associated with it.

# (4.0) CONTRACTUAL REQUIREMENTS

All proposals shall be submitted with the understanding that: (1) all proposals become the property of the Company, and (2) the execution of a separate written contract, in the form provided by the Company, is a condition to any contractual obligation between the Company and a Vendor.

#### (5.0) PAYMENT

The Company prefers to pay the Vendor in two installments for the forecast and documentation: 50% would be paid upon submission of models and results, and the remainder upon completion of the forecast and documentation. Any expenses related to data requests or testimony would be paid monthly.

#### (6.0) INTENT TO BID

Send to:

NSTAR Electric & Gas Corporation One NSTAR Way, SUMM NE 220 Westwood, Massachusetts 02090-9230 Attn: Robert S. Koster Robert\_Koster@nstaronline.com Fax (781) 441-8167

	I will submit a proposal for:
	[ ] Gas Demand Forecast
[]	I will not submit a proposal
Name	
Title	
Firm	
Addre	SS
Telepl	none Number
FAX	Number
Email	Address
Date	

NOTE: The Company will accept proposals from Vendors whether or not this form is returned to the Company. The completed form is, however, both a courtesy and the sole means by which those Vendors who indicate an intention to proposal will be notified of any updated information and/or modifications to this RFP.

# (7.0) PROPOSAL SIGNATURE PAGE

By the submittal of the enclosed proposal, the Vendor hereby acknowledges and accepts the terms and			
conditions set forth in this Request for Proposals.			
This proposal is submitted by the Vendor's duly authorized representative this day of, 2004.			
Signature			
Name, Title			
Firm			
Address			
Telephone Number			
FAX Number			
Email Address			

D.T.E. 05-46

Information Request: DTE-2-3

October 13, 2005

Person Responsible: Max Gowen

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# Information Request DTE-2-3

Refer to page 3 of Attachment 3. The Company reports that at the time of the filing, the average NYMEX strip price from November 2005 through March 2006 was \$8.00/dth.

- A) Please update this figure based on the most recent information available. If different, please describe how a higher/lower price would affect the stated conclusions of the standards report.
- B) State at what point any deviation in actual NYMEX strip prices from the \$8.00/dth average becomes significant enough to force the Company to re-examine its conclusions regarding marginal supply cost as well as the conclusions of the standards report in general.

# Response

A)

10/10/05	NYMEX Settlement
Nov-05	\$13.000
Dec-05	\$13.500
Jan-06	\$13.930
Feb-06	\$13.750
Mar-06	\$13.350
Average	\$13.506

Although the current NYMEX strip is higher than it was at the time the filing was prepared, the Company's analysis relies on fixed costs (e.g., reservation charges), rather than variable commodity costs when performing its cost benefit analysis because fixed costs are incurred by the Company regardless of actual volumes received. Therefore, the Company's analysis remains unchanged by these new commodity costs.

B) Not applicable.

NSTAR Gas Company Department of Telecommunications and Energy

D.T.E. 05-46

Information Request: DTE-2-4

October 12, 2005

Person Responsible: Max Gowen

Page 1 of 1

# Information Request DTE-2-4

Refer to page 3 of Attachment 3. Provide the supporting worksheets and calculations behind the \$11.00/dth estimate of annualized cost of incremental LNG vaporization.

# Response

The \$11.00 figure was based on the annualized cost estimates used by the Company in the 1996 NERA study and rounded up to the nearest whole dollar amount. There are no new studies of LNG vaporization costs.